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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/429,939	10/29/1999	MICHEL AUTHIER		6547

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PRUNNER, KATHLEEN J

ART UNIT	PAPER NUMBER
3751	18

DATE MAILED: 06/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/429,939	Applicant(s) Authier et al.
	Examiner Kathleen J. Prunner	Art Unit 3751



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE THREE MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on May 29, 2002

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) Claim(s) 26-38 is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 26-38 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Continued Prosecution Application

1. The request filed on May 29, 2002 (Paper No. 17) for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/429,939 is acceptable and a CPA has been established. An action on the CPA follows.

Specification

2. The following informalities in the claims are noted: (A) in claims 26, 32 and 38, on line 2, "defining" should be changed to read --having--; and (B) in claims 26, 32 and 38, in part A, "tub water defining a tub water temperature" should be changed to read --water having a water temperature-- so as to avoid confusion concerning "tub water", "water" circulated "to and from said spa tub", and "heated water". Appropriate correction is required.

Claim Objections

3. Claim 38 is objected to under 37 CFR 1.75(b) as being a duplicate of claim 32. Claims 32 and 38 do not differ from each other and thus constitute duplicates of each other.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 37 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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6. Claim 37 contains a term lacking proper antecedent basis. The claim recites the limitation "said predetermined period of time". There is insufficient antecedent basis for this limitation in the claim. To expedite prosecution, claim 37 has been construed hereon as depending from claim 36 instead of claim 35.

Claim Rejections - 35 USC § 103

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 26-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tompkins et al. ('720) in view of Dundas. Tompkins et al. disclose a freeze control system for a spa having a spa tub or container 11 for holding water, spa piping 35 for circulating water to and from the spa tub 11, a heating element 26 for heating the water, a pump 24 for pumping water, a temperature sensor 21 for detecting the temperature of the water in the spa tub 11, and a computer 10 programmed to process signals and selectively activate and deactivate the heating element 26 and the pump 24 (note from line 66 in col. 18 to line 36 in col. 19). Although Tompkins et al. fail to disclose the use of an air temperature sensor and although Tompkins et al. use water temperature sensor 21 as well as other water sensors to operate the freeze control system, attention is directed to Dundas who discloses another freeze control system for a spa or pool that uses both a water temperature sensor and an ambient air temperature sensor to activate the control system (note lines 54-57 in col. 1 and lines 16-33 in col. 2) in order to heat the pool using minimal energy with less waste and expense (note lines 15-19 and 35-37 in col. 1). It would have been obvious to one of ordinary skill in the spa/pool art, at the time the invention was made, to use an ambient air temperature sensor in conjunction with the water temperature sensor in the control system of Tompkins et al. in view of the teachings of Dundas in order to more effectively operate the control system using minimal energy and less waste and

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expense. With respect to claims 27 and 33, the positioning of the ambient air temperature sensor is considered to be an obvious expedient to the skilled artisan since to obtain an accurate ambient air temperature reading, the ambient air temperature sensor should necessarily be mounted so as to be unaffected by any apparatus that emits heat including that of the components of the control system. With regard to claims 28, 29, 34 and 35, it is considered that to position the ambient air temperature sensor closer to the spa equipment where it can be affected by the heat generated by the operating and control systems of the spa/pool and to have the computer make the required correction factors to account for this heat would be an obvious expedient to the skilled artisan especially when available space is limited and accurate readings are key to the efficient operation of the spa. With regard to claims 31 and 37, although it is considered that the predetermined time period necessary to effect operation of the pump is an obvious expedient to the skilled artisan, to use a predetermined time period of one minute to effect operation of the pump is simply the result of optimization of the prior art teachings through routine experimentation, which is not a matter of invention, absent a showing to the contrary (see *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA) 1955), and *In re Hoeschele*, 406 F.2d 1403, 160 USPQ 809 (CCPA 1969). With respect to claims 32 and 38, Tompkins et al. further disclose an air blower 28 for blowing air into the spa tub 11.

Response to Arguments

9. Applicant's arguments filed March 12, 2002 (Paper No. 14) have been fully considered but they are not deemed persuasive.

10. With respect to applicant's arguments concerning the finality of the Office action mailed November 30, 2001 (Paper No. 13), it is considered that this issue is deemed moot since a request for a Continued Prosecution Application was filed on May 29, 2002 (Paper No. 17).

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11. In response to applicant's arguments concerning the claim limitations of the computer activating and deactivating the heating element and the water pump, the Tompkins et al. ('720) reference clearly describes such as previously pointed out in the above rejection of the claims.

12. Contrary to applicant's argument that pools and spas are not common art, it is pointed out that, for the reasons stated in the above rejection of the claims, they are indeed considered to constitute common art to one of ordinary skill in the art since they are both commonly classified and pools, spas and tubs are commonly defined as small bodies of water of relative depth as well as a small bodies of standing water or liquid. Additionally, pools and spas, both of which can be located either indoors or outdoors, can be optionally heated and are conventionally well known to one of ordinary skill in the art.

13. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the teaching, suggestion and motivation are both found in the references themselves as well as in the knowledge generally available to one of ordinary skill in the art as stated in the above rejection of the claims. Both the Tompkins et al. and Dundas references relate to the common art of pools, tubs and spas all of which are containers for holding a body of water and, more specifically, to the common art of freeze control systems for contained bodies of water. Since applicant is concerned with a freeze control system, it is considered that both the Tompkins et al. and Dundas references are pertinent to the particular problem, i.e., preventing the freezing of a body of water, with which applicant is concerned. Hence, both the Tompkins et al. and Dundas references do indeed serve the same purpose.

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Conclusion

14. The Examiner is advising attorneys to FAX any response due to Office actions. The U. S. Patent and Trademark Office (USPTO) is experiencing major delays in matching up papers that were mailed. Due to the Anthrax issue, any mail sent to the USPTO is automatically sent to an irradiation center in Virginia. It has been found that the irradiation process makes papers too brittle to handle. Therefore, the irradiation center has to further copy each paper. The originally filed irradiated papers are then placed in a sealed envelope and put in the associated file. After this irradiation process, the "papers" are then sent to the Office where they are matched with the file. This entire procedure causes months in delays due to the quantity of mailed received. Therefore, it is suggested that any response be sent by FAX especially if a time limit is critical. The FAX number for the technical center where this file is located is given in the paragraph below.

15. Any inquiry concerning this communication from the examiner should be directed to Examiner Kathleen J. Prunner whose telephone number is 703-306-9044. Although the examiner participates in the maxi-flex program, she can usually be reached Monday through Friday from 5:30 AM to 2:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory L. Huson, can be reached on 703-308-2580. The FAX phone number for the organization where this application is assigned is 703-308-7766.

Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist whose telephone number is 703-308-0861.



TIMOTHY L. MAUST
PRIMARY EXAMINER



Kathleen J. Prunner:kjp

June 25, 2002